

AMENDMENTS TO THE CLAIMS

1-4. (Canceled).

5. (Currently Amended) A method of inducing a ~~prophylactically effective~~ an immune response against a *Helicobacter pylori* polypeptide or inducing an immune response for reducing the degree of *Helicobacter pylori* infection in a primate ~~mammal~~, said method consisting essentially of administering to said primate ~~mammal~~ an a ~~prophylactically~~ effective amount of a prophylactically effective *Helicobacter pylori* polypeptide antigen by the subdiaphragmatic, strict systemic route.

6. (Previously Presented) The method of Claim 5, in which a Th1-type immune response is induced by said subdiaphragmatic, systemic administration.

7. (Currently Amended) The method of Claim 6, further comprising induction of wherein ~~a Th1-type immune response and a Th2-type immune response, wherein are induced and the~~ immune response of said primate ~~mammal~~ is characterized by either (i) a ratio of the ELISA IgG2a:IgG1 titers greater than or equal to 1:100, or (ii) a ratio of the ELISA IgG2a:IgA titers greater than or equal to 1:100.

8. (Previously Presented) The method of Claim 7, in which the immune response of said primate ~~mammal~~ is characterized either (i) by a ratio of the ELISA IgG2a:IgG1 titers greater than or equal to 1:10, or (ii) by a ratio of the ELISA IgG2a:IgA titers greater than or equal to 1:10.

9. (Previously Presented) The method of Claim 8, in which the immune response of said primate mammal is characterized either (i) by a ratio of the ELISA IgG2a:IgG1 titers greater than or equal to 1:2, or (ii) by a ratio of the ELISA IgG2a:IgA titers greater than or equal to 1:2.

10. (Canceled).

11. (Previously Presented) The method of Claim 10, in which the *Helicobacter pylori* antigen comprises the UreB or UreA subunit of a *Helicobacter pylori* urease.

12-14. (Canceled).

15. (Currently Amended) The method of Claim 5, in which said ~~[[the]]~~ *Helicobacter pylori* polypeptide antigen is administered by a strict systemic route selected from the subcutaneous route, the intramuscular route, and the intradermal route.

16 and 17. (Canceled).

18. (Currently Amended) The method of Claim 5, in which said ~~[[the]]~~ *Helicobacter pylori* polypeptide antigen is administered in the dorsolumbar region of said primate mammal.

19-24. (Canceled).

25. (Previously Presented) A method of inducing ~~a prophylactically effective~~ an immune response against a Helicobacter polypeptide comprising the UreB or UreA subunit of a Helicobacter pylori urease or inducing an immune response for reducing the degree Helicobacter infection in a mammal, said method comprising in order the steps of:

mucosally administering, in an initial immunization, ~~an a prophylactically effective~~ effective amount of a Helicobacter pylori polypeptide comprising the UreB or UreA subunit of a Helicobacter pylori urease ~~a prophylactically effective Helicobacter pylori polypeptide antigen~~ to said mammal to prime an immune response; and then

parenterally administering ~~an a prophylactically effective~~ amount of a Helicobacter pylori polypeptide comprising the UreB or UreA subunit of a Helicobacter pylori urease ~~a prophylactically effective Helicobacter pylori polypeptide antigen~~ to said mammal to boost said immune response.

26-36. (Canceled).

37. (Previously Presented) The method of claim 25, further comprising carrying out more than one mucosal administration.

38. (Previously Presented) The method of claim 25, further comprising carrying out more than one parenteral administration.

39. (Canceled).

40. (Previously Presented) The method of Claim 25, in which the mucosal administration is oral administration.

41-44. (Canceled).

45. (Currently Amended) The method of Claim 25, further comprising mucosally co-administering a mucosal adjuvant selected from the group consisting of *Escherichia coli* heat labile enterotoxin (LT), cholera toxin (CT), *Clostridium difficile* toxin, *Pertussis* toxin (PT), and combinations, subunits, toxoids, and mutants derived therefrom with said ~~[[the]]~~ mucosally administered *Helicobacter pylori* polypeptide comprising the UreB or UreA subunit of a *Helicobacter pylori* urease antigen.

46. (Currently Amended) The method of Claim 25, in which a parenteral adjuvant selected from the group consisting of alum, QS-21 (purified fraction of saponin extracted from *Quillaria Saponaria Molina*), DC-CHOL (3-beta-(N-(N',N'-dimethylamino-ethane)carbamoyl)cholesterol), and BAY R1005 (N-(2-deoxy-2-L-leucylamino-beta-D-glucopyranosyl)-N-octa-decyldodecanoylamide acetate) is co-administered with said ~~[[the]]~~ parenterally administered *Helicobacter pylori* polypeptide comprising the UreB or UreA subunit of a *Helicobacter pylori* urease antigen.

47. (Previously Presented) The method of Claim 25, in which the parenteral administration is intramuscular administration or subcutaneous administration.

48. (New) The method of claim 5, wherein said primate is a human.